UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

APR 14 2006

DE-9J

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Chris R. Meyer, P.E.
Plant Engineer
Manitowoc Ice Division
2110 South 26th Street
Manitowoc, Wisconsin 54221-1720

Re: Notice of Violation
RCRA Compliance Evaluation Inspection
Manitowoc Ice
EPA I.D. No.: WID980570014

Dear Mr. Meyer:

On January 18, 2006, representatives of the United States Environmental Protection Agency (U.S. EPA) and the Wisconsin Department of Natural Resources (WDNR) inspected the Manitowoc Ice facility ("MI" or "Facility") located in Manitowoc, Wisconsin. The purpose of the inspection was to evaluate MI's compliance with certain provisions of the Resource Conservation and Recovery Act (RCRA); specifically, those regulations related to the generation, treatment, and storage of hazardous waste. Please find enclosed copies of the inspection report and checklists for your reference.

Based on information provided by MI personnel, a review of records, and physical observations by the inspectors, the U.S. EPA finds that MI is engaged in the management of hazardous waste without a hazardous waste storage license and is in violation of the requirements of the Wisconsin Administrative Code (WAC) and the United States Code of Federal Regulations (CFR). To be eligible for the exemption from having a hazardous waste storage license, a large quantity generator must be in compliance with the conditions of WAC ss. NR 615.05(4) and 615.05(6)(a) [40 CFR §§ 262.34(a) and (c)]. Specifically, we find that MI is in noncompliance with the following conditions for a storage license exemption, and is in violation of the following requirements:

1. In order to avoid the need for a hazardous waste storage license, a large quantity generator who stores hazardous waste in a tank system must inspect, where present, at least once each operating day, overfill/spill control equipment, the aboveground portions of the tank system, data from leak-detection and monitoring equipment, and the construction materials (e.g. containment dikes) and the area immediately surrounding the externally accessible portion of the tank system including secondary containment structures. See, WAC ss. NR 615.05(6)(a) and (b), 615.05(4)(a)3.b., 645.11(1) and (2)(a)-(d) [40 CFR §§ 262.34(a)(1)(ii), 265.195(a)(1)-(4)]. The generator must document these inspections in the operating record of the facility. See, WAC ss. NR 615.05(4)(a)3.c., 645.11(4) [40 CFR § 265.195(c)]. These are also requirements of owners and operator of hazardous waste storage facilities under WAC ss. NR 645.11(1), (2)(a)-(d), and (4); 680.22(22) [40 CFR § 265.195(a)(1)-(4)].

   At the time of the inspection, MI was performing weekly visual inspections of the nitric acid tank as a part of the hazardous waste 90-day storage area weekly inspection schedule. According to Mr. Meyer, the Plant Engineer, MI does not perform daily inspections of overfill controls. MI, therefore, failed to comply with the above-mentioned conditions for a hazardous waste storage license exemption and violated the above-mentioned daily tank inspection and documentation requirements.

2. In order to avoid the need for a hazardous waste storage license, a large quantity generator who stores hazardous waste in an existing tank system must have secondary containment meeting the applicable requirements of WAC s. NR 645 [40 CFR § 265.193]. See, ss. NR 615.05(6)(a) and (b), 615.05(4)(a)(3), 645.09(3)(d) [40 CFR §§ 262.34(a)(1)(ii), 265.193(a)(3)]. For each existing tank system that does not have secondary containment meeting these requirements, the generator must obtain and keep on file at the facility a written integrity assessment reviewed and certified by an independent, qualified, registered professional engineer in accordance with WAC s. NR 680.05(2)(d) [40 CFR § 270.11(d)]. See, s. NR 645.07(1) [40 CFR § 265.191(a)]. This assessment must be performed according to WAC s. NR 645.07(2) [40 CFR § 265.191(b)]. Owners and operators of hazardous waste storage facilities must also comply with the above-mentioned requirements under WAC ss. NR 645.07(1), 645.09, and 680.22(22) [40 CFR §§ 265.191(a) and (b); 265.193].

   At the time of the inspection, MI did not have a leak detection system in place for their existing 5,420-gallon nitric acid hazardous waste tank. In so doing, MI failed to have an adequate secondary containment system and was, therefore, responsible for obtaining a certified written integrity assessment including the required elements of WAC s. NR 645.07(2) [40 CFR § 265.191(b)]. MI did not obtain a certified written integrity assessment for the nitric acid hazardous waste tank. MI, therefore, failed to comply with the above-mentioned condition for a storage license exemption and violated the above-mentioned tank assessment requirements.

3. WAC s. NR 615.08(6) requires that after a transporter signs and dates a hazardous waste manifest, a large quantity generator must, within five business days, send a copy to the WDNR.

   At the time of the inspection, the following generator copy of the manifest had not been received by the WDNR: WIK391633 dated 3/15/2005. MI, therefore, violated the above-mentioned manifest requirement.

4. A large quantity generator who accumulates hazardous waste on-site for 90 days or less, and who does not meet the conditions for a storage license exemption of WAC ss. NR 615.05(4) and (6)(a), is an operator of a hazardous waste storage facility, and is required to apply for and obtain a hazardous waste storage license. See, WAC ss. NR 615.05(6)(a) and (b); 680.30, 680.31(2), and 680.32(2) [40 CFR §§ 262.34 (a),(b),(c); 270.1(c); 270.10(a),(d)]. On failing to comply with the conditions for a license exemption referenced in items 1 and 2 above, MI's failure to apply for and to obtain a hazardous waste storage license violated the licensing requirements of WAC ss. NR 680.30, 680.31(2), and 680.32(2) [40 CFR §§ 270.1(c); 270.10(a),(d)].

At this time, U.S. EPA is not requiring MI to apply for a storage license, so long as MI immediately establishes compliance with the conditions for a license exemption as outlined above. Under Section 3008(a) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6928(a), U.S. EPA may issue an order assessing a civil penalty for any past or current violation and requiring compliance immediately or within a specified time period. Although this letter is not such an order, we request that you submit a response in writing to this office documenting the actions, if any, which have been taken since the inspection to establish compliance with the above conditions and requirements.

You should submit your response no later than thirty (30) days after receipt of this letter to Brenda Oswald, United States Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, DE-9J, Chicago, Illinois 60604. Should you have any questions regarding this letter, please contact Brenda Oswald of my staff at (312) 353-4796.

Sincerely,

Paul Little, Chief
Compliance Section # 2
Enforcement and Compliance Assurance Branch
Waste, Pesticides, and Toxics Division

Enclosures

cc: Mr. Barti Oumarou, WDNR, Northeast Region

bcc: Monesh Chabria, ORC

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

Compliance Evaluation Inspection Report

Report Date: January 25, 2006

Date of Inspection: January 18, 2006

Facility Name: Manitowoc Ice, Incorporated

Facility Address: 2110 S. 26th Street
Manitowoc, Wisconsin 54221-1720

EPA ID Number: WID980570014

Generator Status: Large Quantity Generator

Facility Contact: Christopher R. Meyer, P.E. – Senior Plant Manager

U.S. EPA Inspector: Brenda Oswald - Environmental Engineer
Waste, Pesticides and Toxics Division
Enforcement and Compliance Assurance Branch
Compliance Section 2

Prepared By: Brenda Oswald – Environmental Engineer

Date Completed: 2/2/2006
Month / Day / Year

Received By: Paul Little – Chief, Compliance Section 2

Date Received: 2-2-06
Month / Day / Year

Introduction

An unannounced Compliance Evaluation Inspection (CEI) of Manitowoc Ice, Incorporated, ("MI" or "Facility") located at 2110 S. 26th Street in Manitowoc, Wisconsin, took place on January 18, 2006, between 10:00 a.m. and 2:30 p.m. The inspection was conducted as a large quantity generator inspection. The following people were present for this inspection:

Christopher Meyer, P.E. – Senior Plant Manager	MI
Barti Oumarou - Senior Waste Management Specialist	WDNR
Brenda Oswald – Environmental Engineer	U.S. EPA

Facility Information

The following information about MI is based on the personal observations of the U.S. EPA and WDNR inspectors, and on representations made by the Facility personnel identified above during the inspection.

The building housing MI has been utilized since 1979, though MI has been in the foodservice market since the 1960s. The Facility is approximately 360,000 ft^2. MI is part of the Manitowoc Company, Inc., which is located at 2400 South 44th Street in Manitowoc. The company operates in over 20 countries and is comprised of three divisions: foodservice, cranes, and marine. MI employs close to 450 people who work in 3 shifts, 7 days a week.

MI is largely an assembly plant. Most of the equipment that composes a Manitowoc Ice machine is manufactured elsewhere and shipped to this Facility for final machining and assembly. The evaporator trays for the units, however, are plated at MI before being inserted into the product. MI also has a sheet metal department where they sheer, punch, and form their own parts. Plastic bins are also manufactured in-house from resin powder.

The following wastes are generated at MI: waste water treatment sludge (F006), nitric acid (D002), combination filters (F006, D002, D010), cyanide filters (F007), solvents (F005), solder flux (D008, D011), aerosol cans (D001), universal waste batteries and bulbs, and electronic equipment.

The waste water treatment sludge is generated from the plating line along with the bulk combination filters and the cyanide filters. Nitric acid waste is generated from plating tank cleanouts. Spent listed solvents are generated from a parts washer in the maintenance area. Solder flux is generated from cleanouts of the solder rinse tub where evaporator trays are assembled before being plated. Aerosol cans of stripper/cleaner are generated by the foaming lines and the maintenance area and are sent out without first being crushed to release the propellants. Universal waste and computer equipment are generated throughout the Facility.

Walk-Through of Facility

The tour began at the Maintenance Shop, which is also known as the Machine Shop. A satellite post has been set up near this area. Four 55-gallon drums were in service at the time of the inspection. The first drum was kept in a flammable protection cabinet and contained spent solvent (Appendix A: Picture 1). The drum was closed with a locked funnel and labeled as "Hazardous Waste." A second drum contained empty or discarded aerosol cans (Appendix A: Picture 2). This drum was also closed and labeled as "Hazardous Waste." A third drum was used to collect broken fluorescent, incandescent, and high-pressure sodium bulbs (Appendix A: Picture 3). These bulbs have broken on accident and are labeled and managed as "Hazardous Waste." This drum was also closed. A fourth drum contained used oil and was marked as such (Appendix A: Picture 4). Also in this area, MI has plastic drums for lead-acid batteries, circuit boards and dry-cell batteries. These drums were empty at the time of the inspection.

No waste is generated in the Finished Goods section. MI uses non-hazardous packing foam, and the containers from this foam are sent back to the manufacturer in a reuse agreement.

By the Bin Assembly Line (BAL), a 55-gallon drum is used to collect spent propane tanks. The drum is labeled as hazardous waste, but the propane containers are tested to ensure that they are empty before they are shipped Ridgeview, a solid waste landfill. The Foaming Lines are also located by the BAL. The foam is made up of two separate components that are combined as they are injected with guns into cavities in the product casing. This foam is non-hazardous, but the cleaner for the gun tips is provided in aerosol cans. A satellite container for these aerosol cans is in this area. The 55-gallon drum was labeled as "Hazardous Waste" and was closed.

Behind the BAL, in Rotational Molding, bins are created from a fine polyethylene resin which is put into a mold then heated in an oven chamber. The mold is then rotated as water is sprayed on it to help it cool. Excess polyethylene is cut off of the mold and sent back to the resin supplier for reclamation.

By the Steel Processing Dock in the southwest side of the Facility, MI has a cardboard collection area and a garbage compactor. Outside of the Facility, behind this area, MI has hoppers of scrap metal from the machining lines. All scrap metal at the Facility is managed by B & B Metals.

Copper tubing is brought to the Facility on a coil to be straightened mechanically and then reshaped into a serpentine formation that is attached to the bottom of the evaporator trays for the ice machines. No hazardous waste is produced in this Tubing Cell. The sheet metal Press Room is across the aisle from the Tubing Cell. No hazardous waste is produced in this area. No used coolant or cutting oils are generated in either department.

The Evaporator Soldering, Plating and Wastewater Treatment Areas are where the bulk of the hazardous waste is generated at this Facility. Waste water treatment sludge, nitric acid, combination and cyanide filters, and solder flux are generated at different stages in the plating process. The basic pieces that make up the copper evaporator tray are a flat piece of metal, serpentine tubing, and a grid. Each piece is washed and dried. Solder flux is rolled onto the

bottom of the flat sheet and the tubing is attached. Solder flux is applied with a template to the top of the sheet and a copper grid is positioned on that pattern. The excess flux is washed off in a tub. The rinse water is shipped once or twice a year as D008/D011 hazardous waste. The tray is then sent through an oven to melt the solder and bind the components. The tray is then ready for plating.

The Plating Line plates nickel on the copper trays for longevity and sanitary purposes. The process is split between electrolytic and electroless nickel plating. The first two plating tanks electrolytically plate copper onto copper to cover the solder. The next two tanks electrolytically plate nickel onto the copper. The next eight tanks use electroless plating techniques to continue plating nickel onto the tray. Electroless plating is strictly a chemical plating process. A peroxide based microetching tank is also part of the process. Combination filters are generated from the nickel strike and the electroless nickel baths. Though none were on site at the time of the inspection, these filters are normally accumulated in a cubic yard box and are managed as F006, D002, and D010 waste (Appendix A: Picture 5). Cyanide filters are generated from the cyanide bath. These filters were also not being accumulated on site at the time of the inspection, but they are normally accumulated in a 55-gallon drum and managed as F007 waste (Appendix A: Pictures 6, 7).

Beneath the Plating Line, a set of three underground containment trenches is to be used as secondary containment in the event of a spill. The trenches are set up to segregate direct spills from the tanks above. One trench is positioned for the cleaners. A second trench would catch the cyanides, and a third trench is beneath the plating tanks. The containment area is lined and otherwise filled with sand. The trenches are linked via a pump to the Waste Water Treatment System (WWTS). There are no other drains in the area. The concrete floor is lined with a coating and is slightly sloped toward the trenches.

The WWTS is a flow-through system consisting of a pH adjustment tank, clarifier, sludge-thickening tank and filter press. The filter cake generated from the system is managed as F006 waste. The hoppers beneath the filter press were labeled as "Hazardous Waste." These hoppers are emptied into a roll-off box at the north end of the WWTS. This roll-off was labeled as "Hazardous Waste," covered with a tarp, and dated 12/12/2005 (Appendix A: Picture 8). The WWTS also handles batch treatment of cyanide wastewater as it is destructed through a bleaching process. The rinse water from the electroless nickel baths is sent to a separate tank where the excess water is vaporized. US Filter will pick up the concentrated nickel solution, remove the nickel and sell sludge to a smelter.

A 5,420 gallon waste nitric acid tank is located next to the concentrated nickel tank (Appendix A: Picture 9). The tank was most likely installed before March 1991. The tank is protected by a second tank surrounding it, though it is not a double-walled tank. Both the primary and secondary tanks are open to the atmosphere. The secondary tank would be able to contain a leak from the inner tank. The tanks are also surrounded by a diked area of coated concrete that could contain a spill should the secondary tank rupture (Appendix A: Picture 10). The nickel rinse-water and concentrated nickel solution tanks are also within this sizeable containment area. Should the containment dike fail, the plating trenches are directly in front of the tank, and no

other drains are open on the floor. The tank system is not fitted with a leak detection system. Mr. Meyer stated that visual inspections of the tanks and surrounding containment are performed weekly, not daily. An integrity assessment has not been performed for the tank system, nor does MI schedule annual leak tests. Waste is shipped quarterly (no more than 90 days) from this tank. Within the past year, the greatest amount shipped was 3700 gallons, which is more than thirty percent below the capacity of the tank. The nitric acid tank was labeled as "Hazardous Waste" and was dated 11/18/2005 (Appendix A: Picture 11).

A truck bay is located directly behind the nitric acid and electroless nickel wash water tanks and is separated from them by a wall. The tanks are pumped directly to tanker truck via a pump through the wall. The truck bay has a drainage trench that is controlled by a manifold pump which can direct the spill to any tank in the Plating and WWTS area. This bay is also used for the delivery of any chemicals that come to the Facility.

The 90-day storage area is located on the northwest corner of the property. It is a separate building which houses product, used oil, non-hazardous waste, and hazardous waste. Waste had been shipped off earlier in the week and no waste was accumulating in this area at the time of the inspection. Drums and totes are kept on pallets which double as secondary containment. Nitric acid product is stored in metal drums on top of tote-sized containment pallets. The area is supplied with emergency equipment such as an eyewash, 2 fire extinguishers, and spill kits. This room is not equipped with a pull down alarm system, but employees are provided with two-way radios for immediate communication abilities. The hazardous waste that is eventually stored in this area includes the cyanide and combo filters, solder flux rinsate, and solvent waste. Generally, the combo and cyanide filters are shipped 3 or 4 times per year. Solder flux rinsate is shipped only 1 or 2 times per year. The room itself is lined with concrete coating and graded to disallow the migration of waste outside of the building.

End of Walk-Through

Records and Emergency Preparedness Review

Preparedness and Prevention: Emergency arrangements with the following authorities have been made: Manitowoc Fire Department, Manitowoc Police Department, Holy Family Medical Center, Onyx Special Services and the WDNR. The required emergency equipment is available throughout the Facility. MI uses the ADT security system, managing employees carry two-way radios, fire extinguishers and spill containment kits are in necessary locations, and water is at an adequate pressure. Aisle space is adequate.

Contingency Plan: The plan was last amended in April, 2005 and describes the actions Facility personnel must take in response to emergency situations and releases of hazardous waste to the environment. The plan identifies the following people as Emergency Coordinators for MI: Chris Meyer (Primary – 1st Shift), Doug Cayemberg (1st Shift), Kim Kettner (1st Shift), Tom Clarksen (Primary – 2nd Shift), Kathy Ward (2nd Shift), Tom Jonet (3rd Shift). The home phone numbers and addresses are included in office copy of the plan. The

emergency coordinators are given the authority to commit the resources necessary to carry out the contingency plan. A list of emergency equipment shows locations, inspections, capabilities, and descriptions of the equipment. Arrangements with local emergency responders are described in the plan. MI has sent the plan to the responders as well as the WDNR. Evacuation routes, plans and signals are also included in the plan.

Manifests: All manifests are kept on-site for at least three years. The following generator manifest has not been received by the WDNR: WIK391633 – 3/15/2005. The manifests were all complete and had applicable LDR statements attached. The following information about the hazardous waste disposal was taken from the manifests:

Hazardous Waste	Transporter	Transporter EPA ID	TSDF	TSDF EPA ID
Electroplating Treatment Sludge	Onyx Environmental Services, LLC	NJD080631369	Onyx Environmental Services, LLC	WID003967148
Ignitable Waste	Quality Carriers	FLR000057414	Pollution Control Industries, Inc.	IND000646943
Combo Filters	Heritage Transport, LLC	IND058484114	Von Roll of America, Inc	OHD980613541
Cyanide Filters	Heritage Transport, LLC	IND058484114	Von Roll of America, Inc.	OHD980613541
Nitric Acid	Pioneer Tank Lines, Inc.	MND044176113	U.S. Filter Recovery Services, Inc.	MND981098478
Solvent	Quality Carriers/ Transwood, Inc.	FLR000057414 NE0000080580	WRR Environmental Services Co. Inc.	WID990829475
Solder Flux	Heritage Transport	IND058484114	Von Roll of America, Inc.	OHD980613541

Training: Training is provided by Cardinal Environmental. The last training was given on 12/06/2004 to the following: supervisors, manufacturing engineers, maintenance employees, forklift drivers, emergency response teams, lab personnel, platers, and gridline operators. The people who conduct weekly inspections and sign manifests are all plant supervisors. Everyone gets a separate training on the contingency plan. New employees go through an orientation which familiarizes them with emergency procedures.

Inspections: Inspections are performed by either Chris Meyer or Kim Kettner weekly for all 90-day areas including the nitric acid tank, the F006 roll off box and the storage building. Spill kits and satellite accumulation areas are also checked. All weeks for at least the last three years were filed and complete. The inspection log includes date, time, name, notes, and corrective action. Daily inspections are not performed for the nitric acid tank.

Waste Profiles: All waste profiles were up to date and kept at the Facility. The analysis dates are listed below.

Name of Waste	Hazardous Waste Code	Date of Analysis	Name of Lab
WWTS Sludge	F006	January, 2001	Cardinal Environmental
Nitric Acid	D002	August 23, 2001	Cardinal Environmental
Cyanide Filters	F007	May, 2003	National Env. Testing
Combined Filters	F006, D002, D010	June, 1998	National Env. Testing
Solder Flux Rinsate	D008, D011	April 6, 1999	Superior (Now Onyx)
Solvent	F005	September, 2001	Hydrite

Waste Minimization Plan: The F006 sludge is currently land-disposed. MI is, and has been, looking at recycling possibilities. The nickel content in the sludge is low, and the price of nickel, though on the rise, has not yet made reclamation a possibility. Several methods have been used in an attempt to eliminate the nitric acid waste. MI has tried to neutralize the acid on-site, but did not have great success in raising the pH above 2.5. MI has also considered using the acid as part of the pH adjustment system in the WWTS, but that also did not come to fruition. MI has also studied the possibility of a dialysis process in the electroless nickel baths which would entail running these baths through a physical filter to remove more impurities thereby allowing the baths to be in use for longer periods of time and reducing the need for nitric acid to clean scale out of the baths. Currently, however, US Filters handles the waste most appropriately, and so MI continues to ship it to them. MI recycles cardboard and electronic equipment.

Universal Waste: Though no universal waste was on-site at the time of the inspection, it is normally stored on site in appropriate containers and is labeled with purple universal waste stickers. Courtney Battery handles the battery change outs for the fork-lifts. Midwest Lamp Recycling manages electronics, lamps, batteries and mercury. Midwest last picked up the universal waste on 12/9/2005.

Attachments

1. Appendix A – Photo log

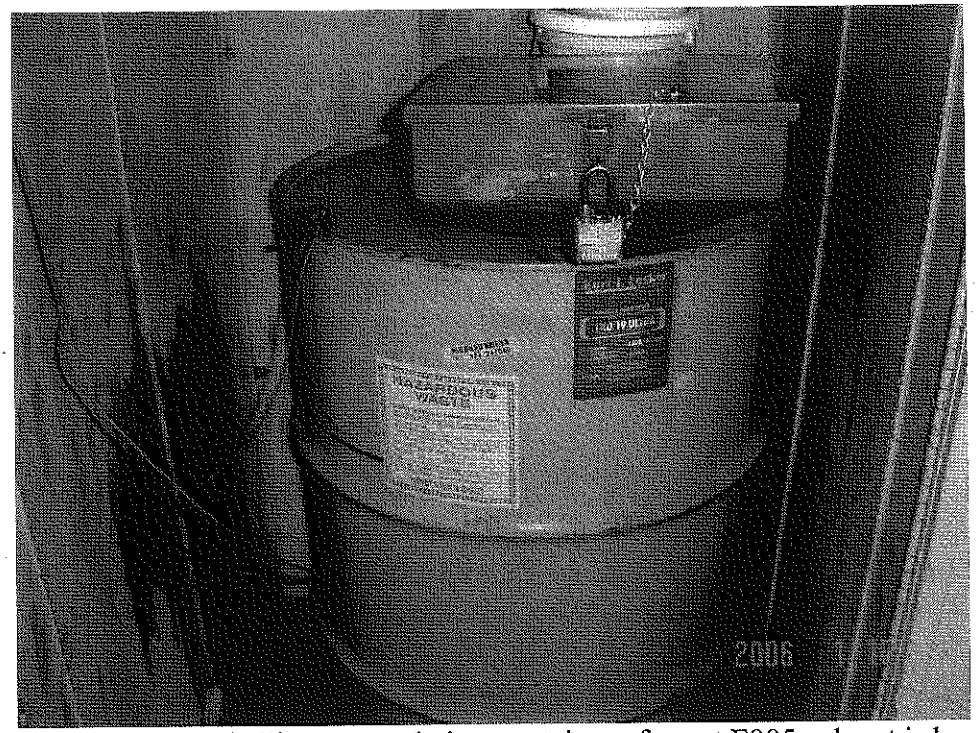
APPENDIX A

PHOTO LOG

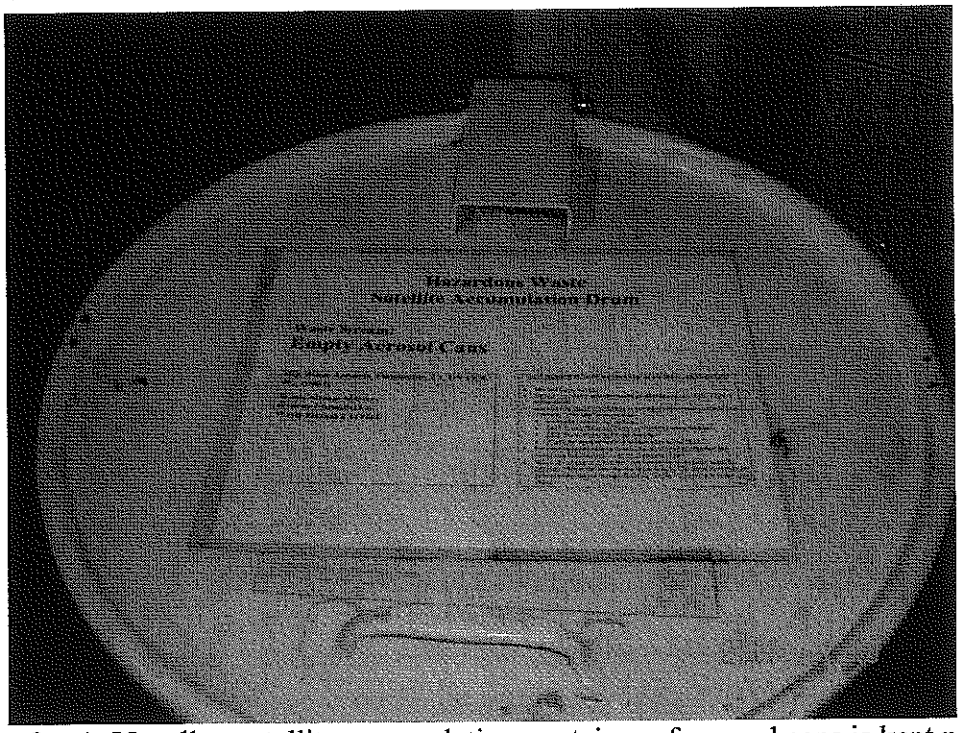
Inspection Date:
January 18, 2006

Facility Name:
Manitowoc Ice, Inc.

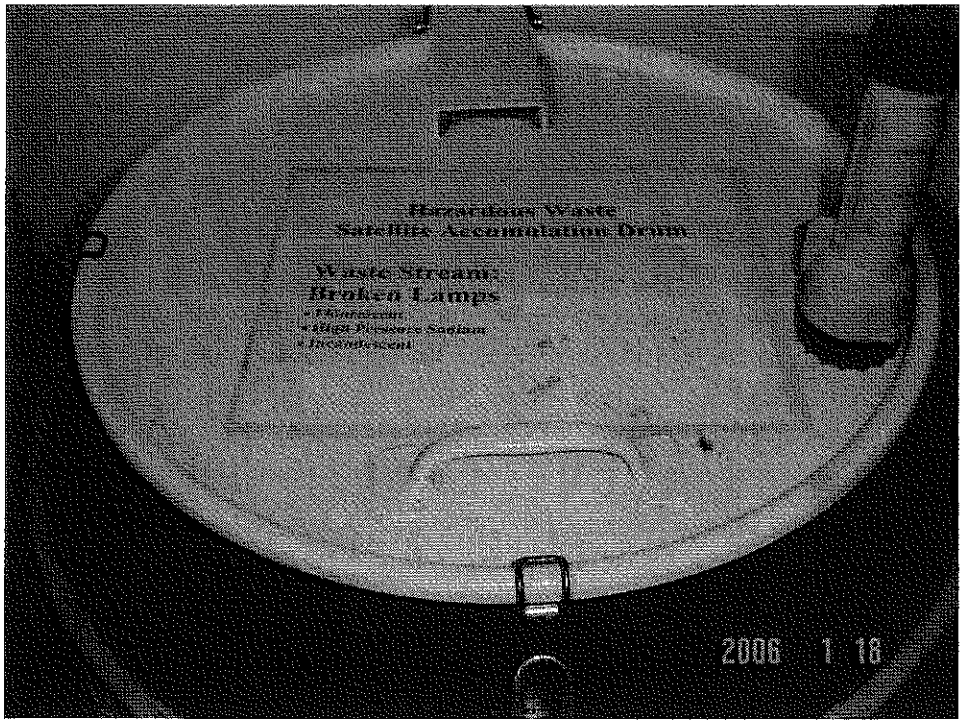
Inspector and Photographer:
Brenda Oswald
Waste, Pesticides and Toxics Division
Enforcement and Compliance Assurance Branch
Compliance Section 2



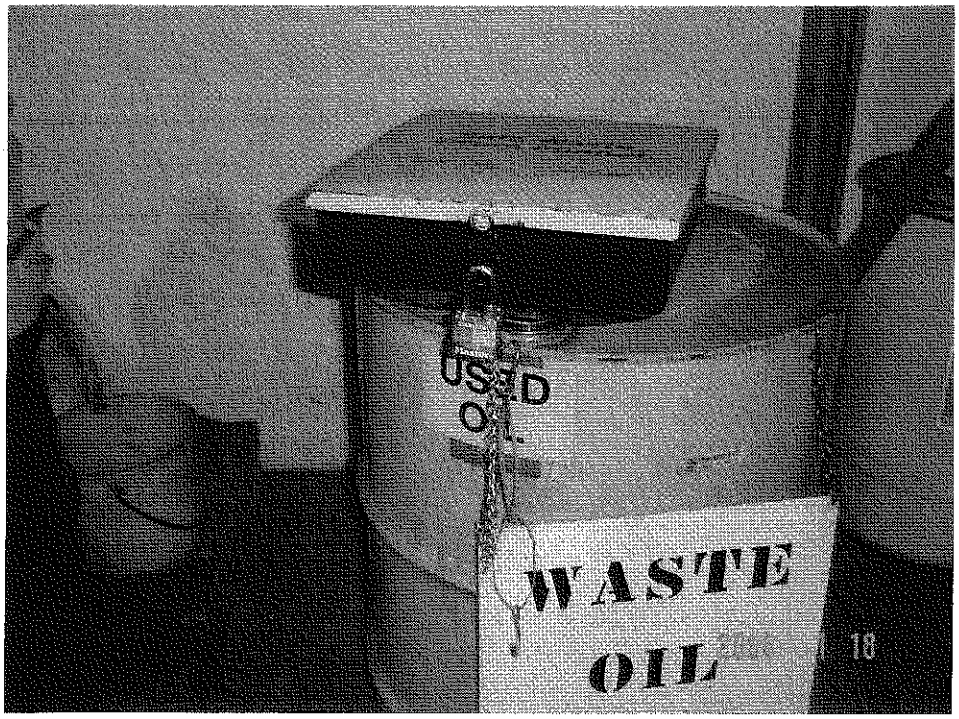
Picture 1 – A 55-gallon satellite accumulation container of spent F005 solvent is kept near the Maintenance Area in a flammable-safe cabinet.



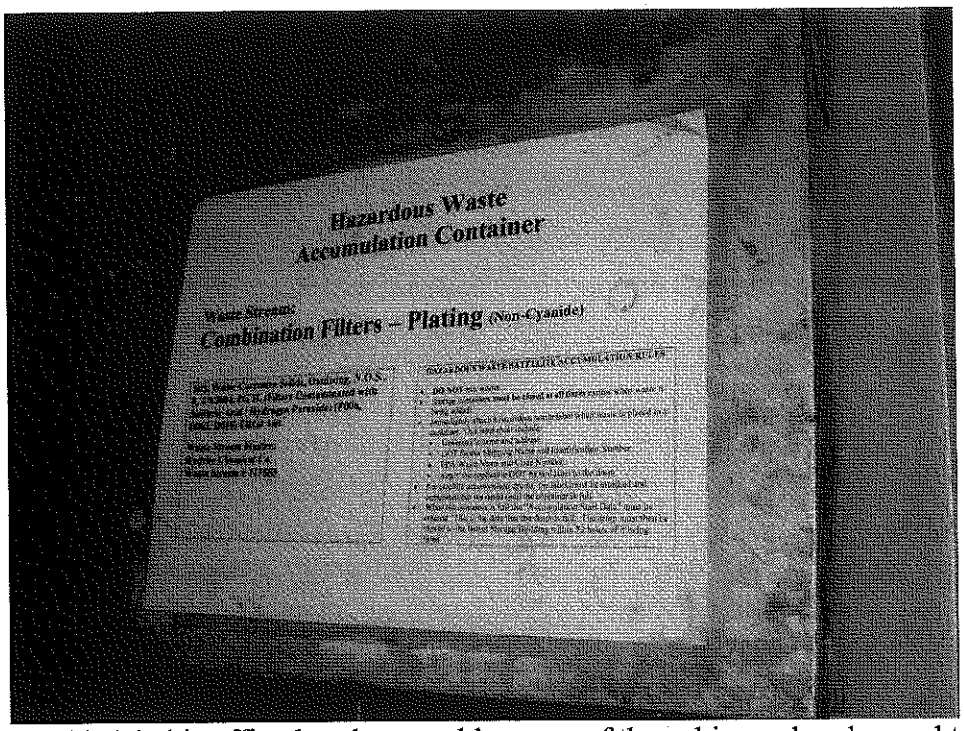
Picture 2 – A 55-gallon satellite accumulation container of aerosol cans is kept near the Maintenance Area.



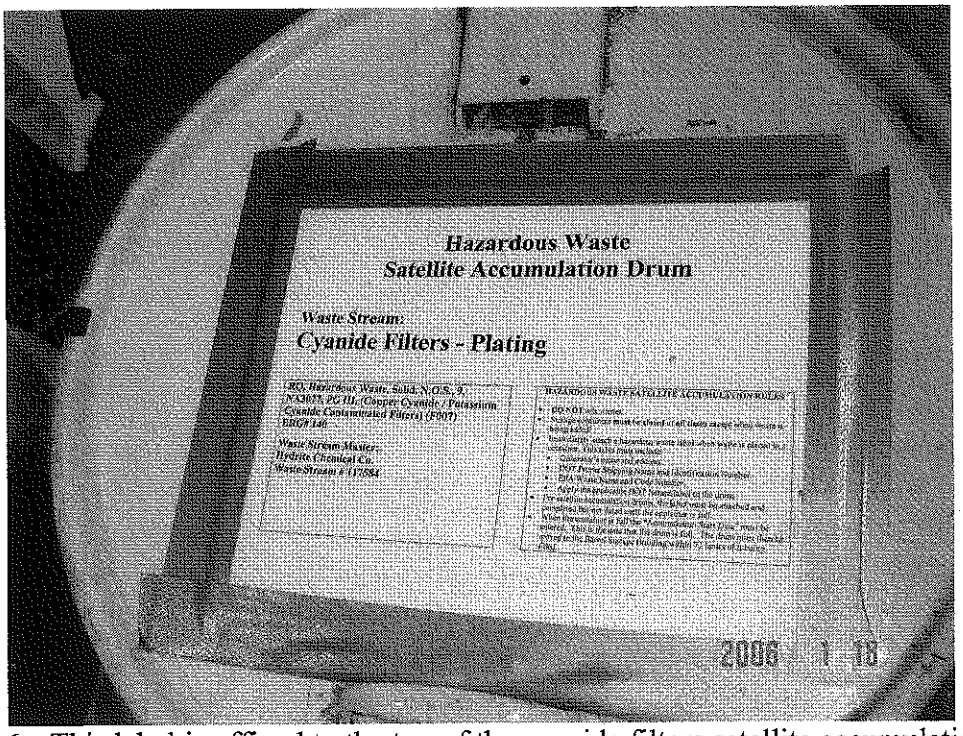
Picture 3 – A 55-gallon satellite accumulation container of broken lamps is kept near the Maintenance Area.



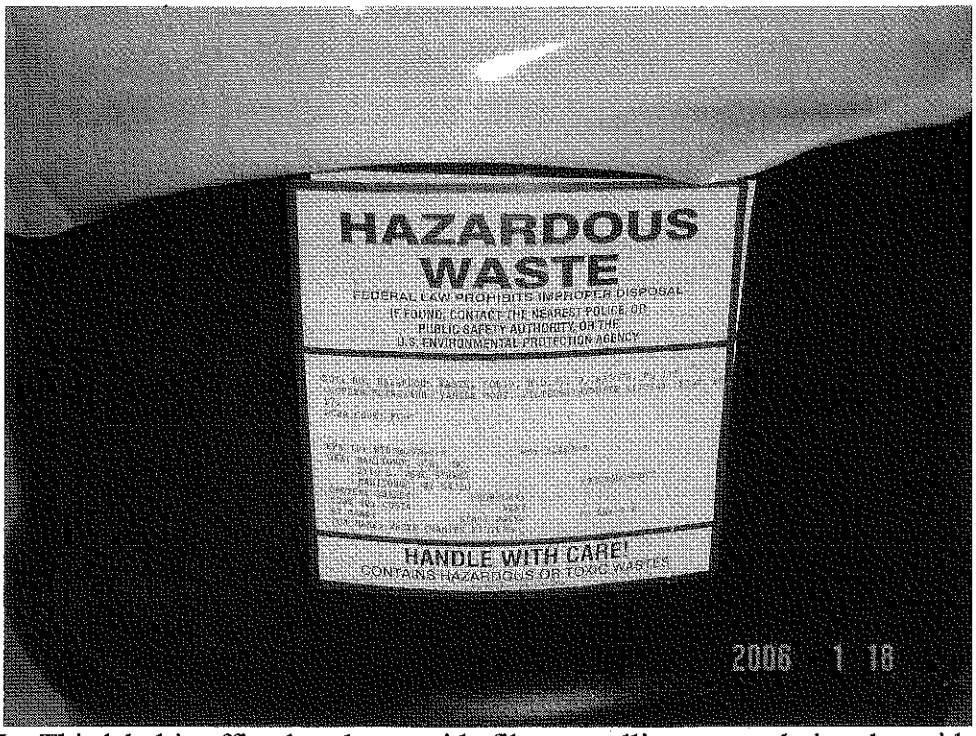
Picture 4 – This used oil drum is kept in the general satellite accumulation area near the Maintenance Area. The drum itself carries the proper label of "Used Oil."



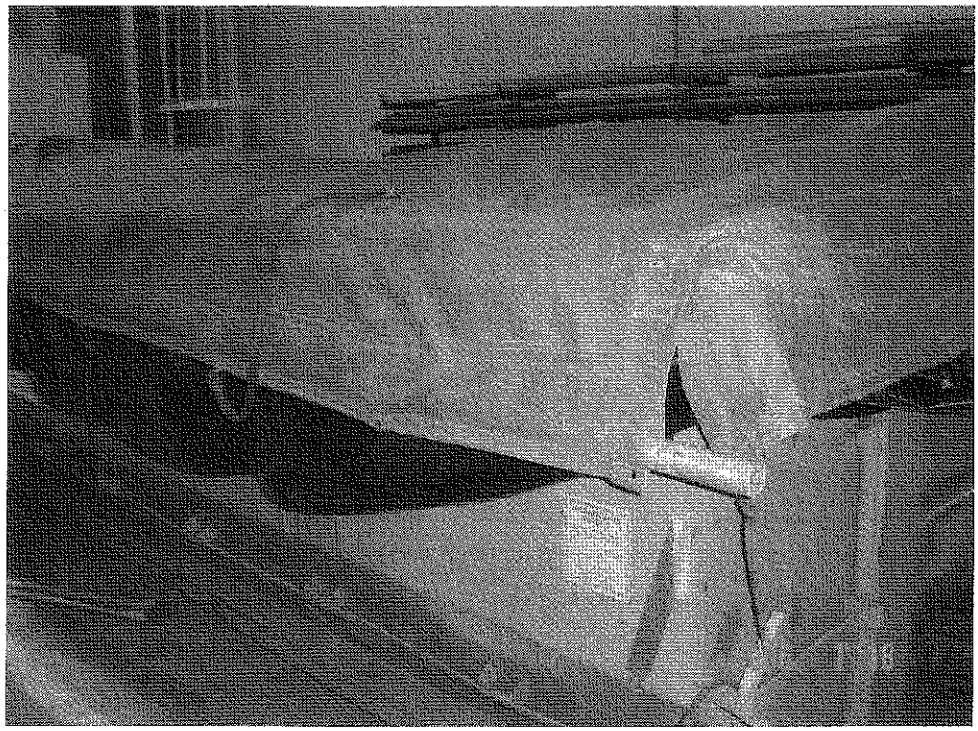
Picture 5 – This label is affixed to the reusable cover of the cubic yard sacks used to contain spent combination filters in a satellite accumulation area near the Plating Line. No combination filters were accumulating at the time of the inspection.



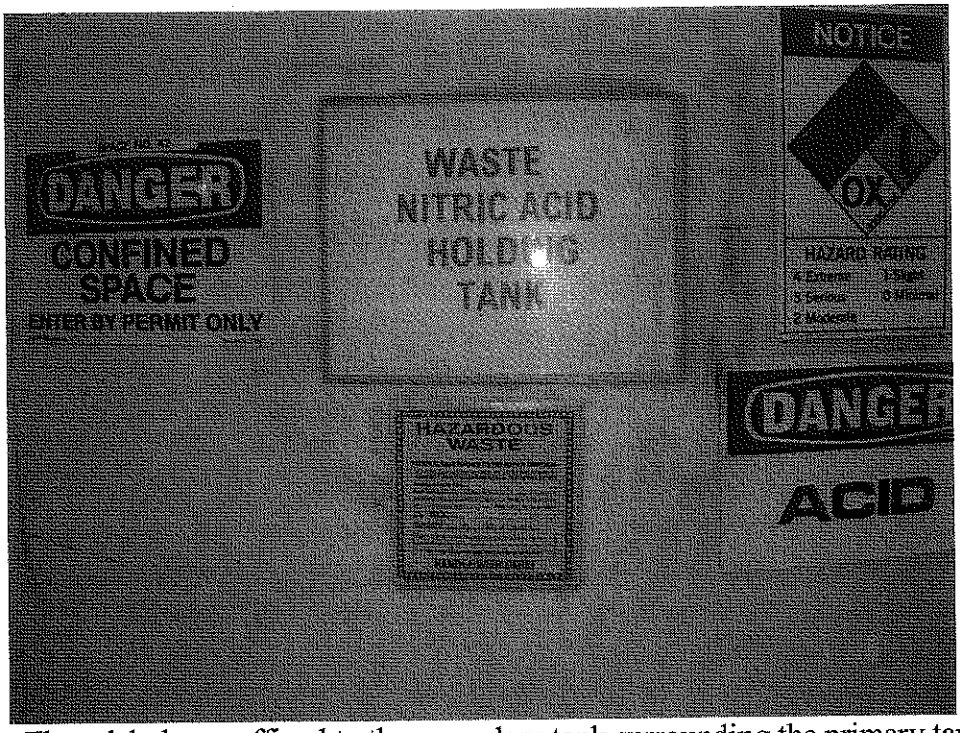
Picture 6 – This label is affixed to the top of the cyanide filters satellite accumulation drum which is located near the Plating Line.



Picture 7 – This label is affixed to the cyanide filters satellite accumulation drum identified in Picture 6.

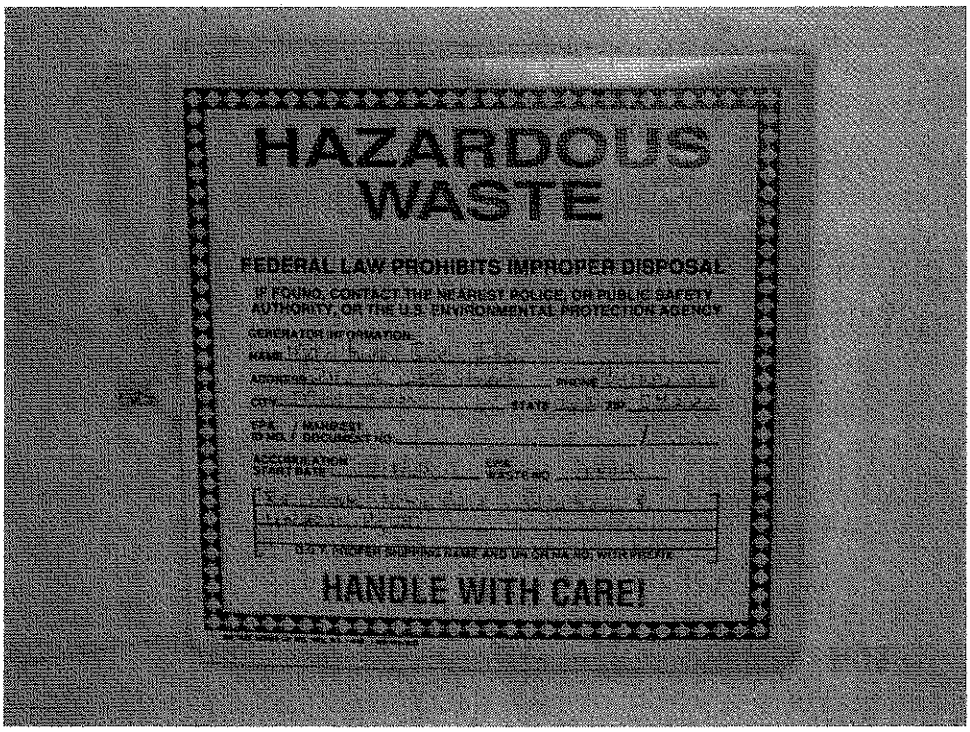


Picture 8 – The roll-off box is a 90-day accumulation container for F006 filter cake.



Picture 9 – These labels are affixed to the secondary tank surrounding the primary tank of spent nitric acid.

Picture 10 – The tanks for the electroless nickel waste water and the spent nitric acid are situated inside of a diked, concrete area.



Picture 11 – The spent nitric acid is labeled as Hazardous Waste and dated from 11/18/05.

State of Wisconsin
Department of Natural Resources
Hazardous Waste Management Program

Large Quantity Generator Inspection Report

Section A: Inspection Information

Inspection Date(s):	DNR Region:	DNR Inspector(s):
JANUARY 18, 2006	NORTHEAST	BRENDA OSWALD, USEPA BARTI OUMAROU, WDNR

Section B: Generator Information

Generator Name	EPA ID Number	Facility ID (FID) Number
MANITOWOC ICE, INC	WID 980 570 014	436017560

Street Address	City	ZIP Code	County
2110 S. 26th Street	MANITOWOC	54221-1720	MANITOWOC

Generator Contact Name	Title	Telephone Number (include area code)
CHRIS R. MEYER, P.E	SENIOR PLANT MANAGER	(920) 683-7517

E-Mail Address: cmeyer@manitowocice.com

Legal Owner Name	Telephone Number (include area code)
MANITOWOC COMPANY INC.	

Street Address	City	State	ZIP Code
2400 S. 44th Street	MANITOWOC	WI	54221

Personnel Present	Title
CHRIS R. MEYER, P.E.	SENIOR PLANT MANAGER

Generator's Main Product or Process: ASSEMBLY OF MANITOWOC ICE ® MACHINES. MOST PARTS ARE ORDERED READY FOR ASSEMBLY. EVAPORATOR TRAYS ARE PLATED IN-HOUSE. POLY BINS ARE ALSO FABRICATED IN-HOUSE.

Section C: Waste Information

Description of Waste Generated	Hazardous Waste Code	Generation Rate lbs/month	Receiving Facility	Analysis (Date)	Generator Knowledge (✓)
WASTE WATER TRTMT SLUDGE	F006	~18,700 lbs/mo	ONYX ENV. SERVICES	1/2001	☐
NITRIC ACID	D002	~10,000	VS FILTERS RECOVERY	8/23/01	☐
COMBINATION FILTERS	F006	~160	VON ROLL AMERICA	6/1998	☐
CYANIDE FILTERS	F007	~66	VON ROLL AMERICA	5/2003	
SOLVENT	F005	~30	WRR ENV. SERVICES	9/2001	☐
SOLDER FLUX	D008, D011	~66	HERITAGE ENVIRONMENTAL	4/6/1999	
Aerosol Cans	D001	~40 lb/mo	Pollution Control, Inc	N/A	GENERATOR KNOWLEDGE ✓

Note: All "NR" References are Wisconsin Administrative Code Chapters

NR 615.06(3)	1. Has a hazardous waste determination been made on each solid waste generated? Check the appropriate means of the determinations: ☐ Lab Analysis ☐ Generator knowledge (specify):	☒ Yes	☐ No
NR 605.12(1)	2. Were waste samples analyzed by certified, registered, or approved laboratories under NR 149? If YES, provide lab names and certification numbers.	☒ Yes	☐ No
NR 615.06(4)	3. Has a new waste analysis been made if the process generating the hazardous waste changed?	☐ Yes	☐ No ☒ N/A
NR 615.06(5)	4. Does the generator keep records of all waste determinations on-site for at least three years from the date the waste was last sent to a storage, treatment or disposal facility?	☒ Yes	☐ No
NR 615.07(2)	5. Has the generator submitted a notification form and obtained an EPA ID#? Note: A subsequent notification should be submitted when there is an ownership or name change.	☒ Yes	☐ No

Section D: Manifest Requirements and Off-Site Shipments

NR 615.08(1)	1. Does the generator initiate a manifest with all off-site shipments of hazardous waste?	☒ Yes	☐ No
NR 615.08(8)	2. Is the manifest complete?	☒ Yes	☐ No

NR 615.08(3)	3. Does the manifest specify an approved facility to receive the waste?	☒ Yes ☐ No
NR 615.08(6)	4. Does the generator send a copy of the manifest to the Department and the receiving state within 5 business days of shipment? (except one)	☒ Yes ☐ No
NR 615.11(10)	5. Does the generator send a copy of the consignment state's manifest signed by the receiving facility to the Department within 5 business days of receipt?	☒ Yes ☐ No
NR 615.08(7)	6. Are copies of all manifests for the past 3 years retained on-site and available for review?	☒ Yes ☐ No
NR 615.10(1) and (2)	7. Is the hazardous waste packaged, marked and labeled according to DOT requirements?	☒ Yes ☐ No
NR 615.10(3)	8. Does the generator offer the initial transporter appropriate placards?	☒ Yes ☐ No
Section E: Land Disposal Restrictions		
NR 675.07	1. Has the generator determined if each waste is prohibited from land disposal? ☒ Lab analysis ☒ Generator knowledge	☒ Yes ☐ No
NR 675.06	2. Does the generator comply with the prohibition against dilution of wastes?	☒ Yes ☐ No
NR 675.07(1)	3. Does the generator provide notification to the off site facility with each shipment?	☒ Yes ☐ No
NR 675.07 (1)	4. Check the appropriate type of LDR notification: ☐ Waste is subject to an EXEMPTION from a prohibition (i.e. case-by-case variances, NR 675.05(2) exemption, nationwide capacity variance) ☐ Waste MEETS treatment standards; certification that wastes may be land disposed without further treatment ☒ Waste EXCEEDS treatment standards; notice of appropriate treatment and applicable prohibitions	
NR 675.07 (1)(j)	5. Does the generator retain a copy of LDR notifications and certifications for 5 years?	☒ Yes ☐ No
NR 675.09 (1)	6. Have underlying hazardous constituents been identified for characteristic wastes?	☒ Yes ☐ No ☐ N/A
NR 675.09(2)	7. If the waste is both a listed and characteristic waste, are all of the treatment standards for the characteristic waste included in the treatment standards for the listed waste?	☒ Yes ☐ No ☐ N/A
NR 675.09(2)	8. If NO to No. 7, are the additional treatment standards for the characteristic waste identified?	☐ Yes ☐ No ☐ N/A
NR 675.20(4)	9. Are wastes with different treatment standards for a constituent of concern mixed? No, All wastes segregated So	☒ Yes ☒ No ☐ N/A
NR 675.20(4)	10. If YES to No. 9, is the most stringent treatment standard selected?	☐ Yes ☐ No ☒ N/A
Section F: Reporting		
NR 615.11(1)	1. Have annual reports covering generator activities during the previous calendar year been submitted to the Department by March 1 of the following year?	☒ Yes ☐ No
NR 615.11(2)	2. Are procedures for exception reporting followed?	☐ Yes ☐ No ☒ N/A
Section G: Preparedness and Prevention		
NR 630.21(2)	1. Is the generator equipped with ALL of the following, unless it can be shown that the equipment is not necessary for the types of wastes handled? ☒ A device to summon emergency assistance (e.g., telephone, 2 way radio) ☒ Internal communications and alarm systems ☒ Portable fire extinguishers ☒ Fire control equipment, including special extinguishing equipment ☒ Adequate spill control equipment ☒ Decontamination equipment (e.g., eyewash, shower)	☒ Yes ☐ No
NR 630.21(4)	2. Is all of the above emergency equipment tested and maintained to assure its proper operation in an emergency?	☒ Yes ☐ No
NR 630.21(3)	3. Is there immediate access to internal or external alarms in hazardous waste handling areas? 2-way radios	☒ Yes ☐ No

NR 630.21(6)	4. Has the generator made necessary arrangements with the following emergency organizations? ☑ Primary and support roles have been defined if multiple police and fire departments could respond to an emergency ☑ Familiarize police, fire and emergency response teams with the site layout, hazards of the waste handled, places where personnel work, entrances and roads in the site and possible evacuation routes ☑ Agreements with emergency response contractors and equipment suppliers to provide response ☑ Familiarize local hospitals with the properties of wastes handled and the potential resulting injuries or illnesses	☒ Yes ☐ No
NR 630.21(5)	5. Is adequate aisle space provided throughout the site to allow for the unobstructed movement of personnel and all emergency equipment?	☒ Yes ☐ No
Section H: Contingency Plan		
NR 630.22(1)(a)	1. Does the generator have a written contingency plan or an amended SPCC plan that will be implemented immediately in the event of a fire, explosion or hazardous waste discharge?	☒ Yes ☐ No
NR 630.22(1)(b)	2. Has the generator made copies of the contingency plan and all revisions available to ALL of the following? ☐ Department ☐ Police ☐ Fire ☐ Hospital ☐ Emergency response teams	☒ Yes ☐ No
NR 630.22(1)(c)	3. Does the contingency plan need to be amended due to any of the following? ☐ Contingency plan failed in an emergency ☐ Change in site design, construction, O&M, or other circumstances which affected emergency response ☐ Emergency coordinators changed ☐ Emergency equipment changed	☐ Yes ☒ No
NR 630.22(1)(d)	4. Does the plan identify an emergency coordinator who meets ALL of the following? ☑ Is available at all times to respond to emergencies at the site ☑ Is familiar with all aspects of site activities and the contingency plan ☑ Has authority to commit the resources needed to carry out the contingency plan	☒ Yes ☐ No
NR 630.22(1)(e)	5. Does the contingency plan include ALL of the following information? ☒ A designation of the primary and alternate emergency coordinator, if more than one person is listed ☒ The name, position, address and phone number, office and home, for each emergency coordinator ☒ A description of the site layout, types of wastes handled and associated hazards, places where employees work, and entrances (roads) accessing the site ☒ An evacuation plan for personnel including signal(s) to be used in the event of evacuation and alternate routes ☒ Procedures to notify local police, fire, hospitals, and emergency response teams in the event of a fire, explosion, or hazardous waste discharge ☒ Procedures for emergency shutdown of site operations Procedure is same as regular. ☒ A list of emergency equipment at the site, including location, description, and capabilities of each item	☒ Yes ☐ No

Emergency Stops

Fire - ADT security systems.
Fire department first
then notify manitowoc

NR 630.22(2)(a)	6. Does the plan require the emergency coordinator to do ALL of the following in the event of a fire, explosion, or discharge of hazardous wastes? ☒ Activate internal alarms or communication systems ☒ Telephone the division of emergency government (1-800-943-0003) ☒ Identify the character, source, amount, and extent of discharged hazardous materials ☒ Assess hazards to human health and the environment ☒ Immediately notify appropriate authorities, as necessary ☒ Take all reasonable measures necessary to ensure fires, explosions and discharges do not occur, reoccur, or spread ☒ Monitor for leaks, pressure buildup, gas generation or ruptures in valves, pipes, or other equipment if the site stops operation ☒ Provide for treating, storing, or disposing of recovered waste, contaminated soil, surface water, or other material ☒ Ensure wastes that are incompatible with the discharged material are not treated, stored or disposed until cleanup is completed ☒ Ensure that emergency equipment is clean and fit for use prior to resuming operations	☒ Yes ☐ No
NR 630.22(2)(b)	7. Will the generator notify the Department and appropriate local authorities prior to resuming operations?	☒ Yes ☐ No
Section I: Personnel Training Requirements		
NR 630.16(1)	1. Does the generator have a program of classroom instruction or on-the-job training for personnel in hazardous waste management?	☒ Yes ☐ No
NR 630.16(1)	2. Are the following applicable items included in the training program? ☒ Contingency plan implementation Separate training for all employees. ☐ Procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment ☒ Key parameters for automatic waste feed cut-off systems ☒ Communications and alarm systems ☒ Response to fires or explosions ☒ Response to groundwater contamination incidents ☒ Shutdown of operations Evacuation drills	☒ Yes ☐ No
NR 630.16(2)	3. Are new employees trained within 6 months of their assignment?	☒ Yes ☐ No
NR 630.16(3)	4. Do personnel take part in an annual review of the training?	☒ Yes ☐ No
NR 630.16(4)	5. Are ALL of the following training documents kept on-site for at least 3 years from each employee's last date of employment? ☒ Job titles and the employee name for each position related to hazardous waste management ☒ Job description of each of the above job titles ☒ Description of the amount and type of training that will be given to each employee ☒ Records that required training has been given to each employee THE have them	☒ Yes ☐ No
Section J: 90-Day Container Accumulation		
	1. Does the generator accumulate hazardous waste in containers? If NO, go to Section K. (roll off boxes - only one with waste at time of the inspection	☒ Yes ☐ No
NR 615.05(4)(a)5.	2. Are the containers marked with the starting date of accumulation?	☒ Yes ☐ No
NR 615.05(4)(a)6.	3. Are the containers accumulated for 90 days or less?	☒ Yes ☐ No
NR 615.05(4)(a)10.	4. Are containers marked with the words "Hazardous Waste"?	☒ Yes ☐ No
NR 615.05(4)(a)2.d.	5. Are all containers of hazardous waste in good condition?	☒ Yes ☐ No
NR 615.05(4)(a)2.j.	6. Are all containers made of or lined with materials that are compatible with the waste?	☒ Yes ☐ No
NR 615.05(4)(a)2.e.	7. Are all containers kept closed, except when it is necessary to add or remove waste?	☒ Yes ☐ No
NR 615.05(4)(a)2.f.	8. Are containers opened, handled or stored to prevent leaks or ruptures?	☒ Yes ☐ No

NR 615.05(4)(a)2.b.	9. Are containers and accumulation areas inspected weekly for leaks and defects?	☒ Yes ☐ No
NR 615.05(4)(a)2.c.	10. Are the inspections recorded into a log which includes ALL of the following? ☒ Date and time of inspection ☒ Name of inspector ☒ Notation of the observations made ☒ Date and nature of repairs or remedial actions	☒ Yes ☐ No
NR 615.05(4)(a)2.c.	11. Are the inspection records kept for at least 3 years from the date of the inspection?	☒ Yes ☐ No
NR 615.05(4)(a)2.g.	12. Are containers of ignitable or reactive waste located at least 50 feet from the property line? Closest corner in Building 614	☒ Yes ☐ No ☐ N/A
NR 640.15(1)	13. Are containers of incompatible wastes separated or protected from each other by a physical barrier (dike, berm, wall or other device)?	☒ Yes ☐ No ☐ N/A
NR 640.15(2)(b)	14. Are incompatible wastes stored in separate containers?	☒ Yes ☐ No ☐ N/A
NR 640.15(2)(a)	15. Are containers that previously held an incompatible waste properly washed before adding waste?	☐ Yes ☐ No ☒ N/A
Section K: Satellite Accumulation		
	1. Does the generator accumulate waste at or near the generation point? If NO, go to Section L.	☒ Yes ☐ No
NR 615.05(4)(c)1.	2. Are the containers in good condition?	☒ Yes ☐ No
NR 615.05(4)(c)2.	3. Are the containers always kept closed except when it is necessary to add or remove waste?	☒ Yes ☐ No
NR 615.05(4)(c)3.	4. Are containers opened, handled or stored to prevent leaks or ruptures?	☒ Yes ☐ No
NR 615.05(4)(c)4.	5. Does the generator accumulate no more than 55 gallons of hazardous waste or 1 quart of acute hazardous waste in each satellite area? (separate waste streams)	☒ Yes ☐ No
NR 615.05(4)(c)5.	6. Are the containers marked "hazardous waste" or other words that identify the contents?	☒ Yes ☐ No
NR 615.05(4)(c)6.	7. Are the containers immediately marked with the date the excess amount is generated? couldn't verify.	☒ Yes ☐ No
NR 615.05(4)(c)6.	8. Does the generator comply with the 90 day accumulation requirements with respect to the excess amount within 3 days of it being generated?	☒ Yes ☐ No
Section L: Waste Minimization		
NR 615.09(2)	1. Does the generator include waste minimization information in the annual report?	☒ Yes ☐ No
NR 615.09(1)(a)	2. Does the generator have a program in place to reduce the volume or quantity and toxicity of waste to an economically practicable degree?	☒ Yes ☐ No
NR 615.09(1)(b)	3. Does the generator have a written waste minimization/pollution prevention plan, as recommended by EPA guidance?	☒ Yes ☐ No
NR 615.09(1)	4. Is evidence gathered during the inspection to justify the generator's waste minimization certification on the manifest?	☒ Yes ☐ No
Section M: Treatment with Absorbent Materials		
NR 615.05(5)	1. Does the generator combine absorbent material with waste for the purpose of eliminating free liquids? If YES, see NR 615.05(5).	☐ Yes ☒ No

Section N: Universal Waste Management

Are universal wastes generated at the site? If NO, go to Section O. ☐ Yes ☐ No

Waste Type	Quantity Generated	On-Site Storage Method	On-Site Treatment (List)	Shipped to handler/destination facility (List)
Fluorescent bulbs	500 lamps/year	in boxes	—	Midwest Lamp.
Batteries.	As needed	change outs		Courtney Battery

Note: Management of CRTs and antifreeze as per department guidance should also be discussed with the generator.

NR 690 Such. II	1. Does the generator comply with the small quantity handler requirements if <5,000 kg/yr is accumulated?	☒ Yes ☐ No ☐ N/A
NR 690 Subch. III	2. Does the generator comply with the large quantity handler requirements if >5,000 kg/yr is accumulated?	☐ Yes ☐ No ☒ N/A

NR 690.04(2)	3. If the universal waste is not recycled, has the generator complied with the applicable NR 600-685 requirements?	☐ Yes ☐ No ☒ N/A

Section O: Generator Status Evaluation

1. Is the Large Quantity Generator status confirmed by this inspection? ☒ Yes ☐ No
2. If No, what is the correct generator classification?
   ☐ Non-Generator ☐ Very Small Quantity Generator ☐ Small Quantity Generator
3. Are there any other on-site hazardous waste activities at the generator's location? ☒ Yes ☐ No
4. If YES, check all that apply.
   ☒ Accumulation in Tanks ☐ Recycling ☐ Transfer ☐ Transporter ☐ Treatment ☐ Storage ☐ Disposal

Inspection Comments. Add comments on additional pages if necessary.

Nitric acid tank (5,420 gallon) see attached checklist.

DNR ~~Inspector~~ Signature:

Date: 1/18/2006

ATTACHMENT 2
TANK SYSTEM STANDARDS INSPECTION FORM
FOR LARGE QUANTITY GENERATORS, TREATMENT AND STORAGE FACILITIES
HAZARDOUS WASTE MANAGEMENT PROGRAM
WISCONSIN DEPARTMENT OF NATURAL RESOURCES

I. EXEMPTIONS [NR 645.04]

Indicate if any of these exemptions applies to the tank system:

- Tank systems which are part of a totally enclosed treatment facility.
- Tank systems which a small quantity generator is using to accumulate waste on site that is in compliance with Ch. NR 610.
- Tank systems which are part of a wastewater treatment unit provided the owner or operator is in compliance with the requirements of s. NR 630.04(1).
- Tank systems which are part of an elementary neutralization unit provided the owner or operator is in compliance with the requirements of s. NR 630.04(7).
- Tank systems which are part of a POTW storing spent pickle liquor prior to recycling at the POTW provided the tank is approved under s. 144.04 Stats.

Comments: _____

_____

II. GENERAL INFORMATION

DEPARTMENT INFORMATION

DNR District: NORTHEAST Inspection date: JANUARY 18, 2006

~~DNR~~ Inspector(s) BRENDA OSWALD, U.S. EPA BARTI OUMAROU - WDNR

LARGE QUANTITY GENERATOR/TREATMENT/STORAGE FACILITY INFORMATION

Generator/TSF Name: MANITOWOC ICE, INC

U.S. EPA I.D. #: WID 980 570 014 FID #: 436017560

Generator/TSF Location: 2110 S. 26th STREET

Street: _____

City: MANITOWOC County: MANITOWOC Zip: 54221

Site Personnel Present: CHRIS R. MEYER Title: SR. PLANT MANAGER, P.E.

_____ _____

III. TANK SYSTEM(S) IDENTIFICATION

For a site with more than one hazardous waste tank system you should complete a separate copy of this form for each tank system or group of tank systems (e.g., several adjacent tanks with a common containment system, or several interconnected tanks constituting a treatment system).

This is number 1 of 1 tank system form(s) used for this inspection.

List only those Tank System(s) Evaluated by this Inspection Form:

Tank Name or I.D.#	Capacity (Incl. Units)	Type[1]	Construction Materials	Date Installed	Sec. Cont. Type[2]	Waste Code(s)	Waste Description	New or Existing[3]
Nitric	5420 gal	Above Ground		UNK.	Second tank/ diked area	D002	Nitric Acid	Existing

[1]Above ground; onground; inground; underground, enterable; or underground, non-enterable [NR 600.03(1), (106), (149), and (223)].
[2]External liner, vault, double walled tank, or other. A vault has its floor and walls entirely or almost entirely in the ground. An external liner may be constructed of either flexible or rigid materials.
[3]New tank systems or components are those for which construction began after March 1, 1991 [NR 600.03(142)].

IV. DESIGN AND INSTALLATION OF NEW TANK SYSTEMS OR COMPONENTS [NR 645.08]

New tank systems or components are those for which construction began after March 1, 1991. [NR 600.03 (142)] N/A

The owner or operator of a new tank system shall ensure that proper handling procedures are adhered to in order to prevent damage to the system during installation. Prior to covering, enclosing or placing a new tank system or component in use, an independent qualified installation inspector or an independent, qualified, registered professional engineering, in accordance with s. NR 680.05(2)(d), either of whom is trained and experienced in the proper installation of tank systems or tank system components, shall inspect the system. All discrepancies shall be remedied before the tank system is covered, enclosed or placed in use. [NR 645.08(2)]

A.	Does the owner or operator keep on file at the facility, written statements by those persons who are required to certify the design of the new tank system and supervise the installation of the tank system, and any required repairs, including the certification statements as required in s. NR 680.05(2)(d)? [NR 645.08(7)]	Yes	No
B.	Do the written statements attest to the inspection for (a) weld breaks, (b) punctures, (c) scrapes of protective coatings, (d) cracks, (e) corrosion, and (f) other structural damage or inadequate construction or installation? [NR 645.08(2)]	Yes	No
C.	Do the written statements show that all new tanks and ancillary equipment were tested for leak tightness prior to being covered, enclosed or placed in use, and that all repairs necessary to remedy any leak in the system were performed prior to the tank system being covered, enclosed, or placed into use? [NR 645.08(4)]	Yes	No
D.	If the Department, in its review of the proposed tank system, required corrosion protection recommended by an independent corrosion expert, do the written statements show that any field fabrication was supervised by an independent corrosion expert to ensure proper installation? [NR 645.08(6) & (7)]	Yes	No NA
E.	Are new tank systems or components and piping that are placed underground and backfilled provided with a backfill material that is a noncorrosive, porous and homogenous substance and that is installed so that the backfill is placed completely around the tank and compacted to ensure that the tank and piping are fully and uniformly supported? [NR 645.08(3)]	Yes	No NA

F. Is all new ancillary equipment supported and protected against physical damage and excessive stress due to settlement, vibration, expansion or contraction? [NR 645.08(5)] Yes No

Comments: _____

_____

_____

_____

V. SECONDARY CONTAINMENT AND RELEASE DETECTION [NR 645.09]

Note: See the attached illustration outlining secondary containment and assessment requirements for LQG and TSD Tank Systems.

A. Is the tank system used exclusively for storage or treatment of waste that contains no free liquids (EPA Method 9095: Paint Filter Liquids Test, EPA SW-846) and located inside a building with an impermeable floor, designed and built with a continuous base, free of cracks or gaps, and impervious to the waste? If the answer is yes, do not apply the requirements of NR 645.09. Attach relevant documentation. [NR 645.09(1)] Yes (No)

B. Indicate which of the following will be used to determine the deadline for compliance with this section. [NR 645.09]

1. [ ] New tanks and their ancillary equipment must have secondary containment and leak detection prior to use. [NR 645.09(3)(a)]

2. [ ] For tanks and ancillary equipment containing dioxins (F020-23, F026-7), the deadline is September 1, 1993. [NR 645.09(3)(b)]

3. Tanks that are underground and can not be entered and their ancillary equipment [NR 645.09(3)(c)]:

[ ] First consider documentable age of tank system: Deadline March 1, 1991, or when the tank system is 15 years old, whichever is later.

[ ] If tank age is undocumented, determine age of facility. If construction began before March 1, 1984, deadline is January 12, 1995. If construction began after March 1, 1984, deadline is March 1, 1991 or when facility is 15 years old, whichever is later.

4. Other tanks and their ancillary equipment [NR 646.09(3)(d)]:

[ ] First consider documentable age of tank system: Deadline is September 1, 1991, or when the tank system is 15 years old, whichever is later.

☒ If tank is undocumented, determine age of facility. If construction began before March 1, 1984, deadline is September 1, 1999. If construction began after March 1, 1984, deadline is September 1, 1999 or when facility is 15 years old, whichever is later.

C. Based on the above, what is the deadline for compliance with this section? (Add comments if the deadline has passed for some tanks or components but not for others. If a deadline has not yet passed, continue to fill out this section for informational purposes, but do not cite discrepancies as violations of NR 645.09. Also, note any historical violations where compliance occurred after a deadline.) Deadline: SEPTEMBER 1, 1999

Comments: _____

_____

_____

D. "Tank system component" refers to the tank or to ancillary equipment such as pipes, fittings, flanges, valves and pumps. Ancillary equipment must meet the secondary containment and leak detection requirements (e.g., lined or coated trench, jacketing, double walled piping) unless specifically exempted. Indicate any applicable exemptions to secondary containment and leak detection requirements for auxiliary equipment:

☐ Above ground piping, inspected visually on a daily basis, for which any and all flanges, joints, and connections are welded. [NR 645.09(8)(a) & (b)]

☐ Sealless or magnetic coupling pumpings and sealless valves, that are inspected visually on a daily basis. [NR 645.09(8)(c)]

☐ Pressurized above ground piping systems with automatic shut-off devices that are inspected visually on a daily basis. [NR 645.09(8)(d)]

E. Is the secondary containment system:

1. Designed, installed and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, groundwater or surface water at any time during the use of the tank system? [Note: Due to the relative permeability of concrete, concrete liners and vaults require an impermeable coating or lining.] [NR 645.09(4)(a)] (Yes) No

2. Capable of detecting and collecting releases and accumulated liquids until the collected material is removed? [NR 645.09(4)(b)] Yes (No)

F. Is the secondary containment system, at a minimum:

1. Constructed of or lined with materials that are compatible with wastes that are to be placed in the tank system and have sufficient strength and thickness to prevent failure owing to the pressure gradients, including static head and external hydrological forces, physical contact with the waste to which it is exposed and climatic conditions and the stress of daily operation, including stresses from nearby vehicular traffic? [NR 645.09(5)(a)] (Yes) No

2. Placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system and capable of preventing failure due to settlement, compression or uplift? [NR 645.09(5)(b)] (Yes) No

3. Provided with a leak detection system that is designed and operated to detect the failure of either the tank system or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours or at the earliest practicable time if the owner or operator can demonstrate to the department that existing detection technologies or site conditions will not allow detection of a release within 24 hours? [NR 645.09(5)(c)]; and Yes (No)

4. Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills or precipitation. Spilled or leaked waste and accumulated precipitation shall be removed from the secondary containment system within 24 hours, or in as timely a manner as possible to prevent harm to human health and the environment, if it can be demonstrated to the department that removal of the released waste or accumulated precipitation cannot be accomplished with 24 hours? [NR 645.09(5)(d)] (Yes) No

Comments: _____

_____

_____

G. Does the secondary containment include one or more of the following devices: [NR 645.09(6)(a)]

1. A liner, external to the tank? [NR 645.09(6)(a)]; (Yes) No

2. A vault? [NR 645.09(6)(b)]; Yes No

3. A double walled tank? [NR 645.09(6)(c)]; Yes No

4. An equivalent device as approved by the department? [NR 645.09(6)(d)]. Yes No

Comments: Tank within a tank, plus diked area around tank, plus sloping floor outside of diked area to a wastewater treatment trench system

H. Is the external liner system

1. Designed or operated to contain 100% of the capacity of the largest tank and its ancillary equipment within its boundary? [NR 645.09(7)(a)1] (Yes) No

2. Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the secondary containment system has sufficient excess capacity to contain run-on or infiltration. Excess capacity shall be sufficient to contain precipitation from a 25 year, 24 hour rainfall event? [NR 645.09(7)(a)2] (Yes) No

3. Free of cracks or gaps? [NR 645.09(7)(a)3] (Yes) No

4. Designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the waste if the waste is released from the tank or tanks? (must prevent lateral and vertical migration) [NR 645.09(7)(a)4] (Yes) No

Comments: _____

_____

I. Is the vault system (N/A)

1. Designed and operated to contain 100% of the capacity of the largest tank and its ancillary equipment with in its boundary? [NR 645.09(7)(b)1] Yes No

2. Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the secondary containment system has sufficient excess capacity to contain run-on or infiltration. The excess capacity shall be sufficient to contain precipitation from a 25 year, 24 hour rainfall event? [NR 645.09(7)(b)2] Yes No

3. Constructed with chemical resistant water stops in place of all joints, if any? [NR 645.09(7)(b)3] Yes No

4. Provided with an impermeable interior coating or lining that is compatible with the stored or treated waste and that shall prevent migration of waste into the construction material of the vault? [NR 645.09(7)(b)4] Yes No

5. Provided with a means to protect against the formation and ignition of vapors within the vault, if the waste being stored to treated meets the criteria of an ignitable waste [NR 605.08(2)] or reactive waste [NR 605.08(4)] which may form an ignitable or explosive vapor? [NR 645.09(7)(b)5] Yes No

6. Provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure? [NR 645.09(7)(b)6] Yes No

Comments: _____

_____

J. Are the double walled tanks (N/A)

1. Designed as an integral structure so that any release from the inner tank is contained by the outer shell? [NR 645.09(7)(c)1] Yes No

2. Protected, if constructed of metal, from both corrosion of the primary tank interior and of the external surface of the outer shell? and [NR 645.09(7)(c)2] Yes No

3. Provided with a built-in continuous leak detection system capable of detecting a release with 24 hours, or at the earliest practicable time, if the owner or operator can demonstrate to the department, and the department concludes, that the existing detection technology or site conditions would not allow detection of a release within 24 hours? [NR 645.09(7)(c)3] Yes No

Comments: _____

Note: The remaining items of this section apply to all tank systems which do not yet have secondary containment that meets the requirements of NR 645.09.

K. For tanks that are underground and cannot be entered, has a leak test that meets the requirements of NR 645.07(2)(e) or other tank integrity method, as approved by the Department, been conducted at least annually? [NR 645.09(11)(a)] Yes No (NA)

Comments: _____

L. For other than underground tanks that cannot be entered, have annual leak tests been documented, or alternatively, have scheduled assessments by independent registered professional engineers been conducted that are adequate to detect obvious cracks, leaks and corrosion or erosion, and is the frequency of these assessments based upon the construction material of the tank and its ancillary equipment, the age of the system, the type of corrosion or erosion protection used, the rate of corrosion or erosion observed during the previous inspection and the characteristics of the waste being stored and treated? [NR 645.09(11)(b)] — Yes (No)

Comments: _____

M. For ancillary equipment, has a leak test or other integrity assessment as approved by the Department been conducted at least annually? [NR 645.09(11)(c)] — Yes (No)

Comments: _____

N. Have the results of the assessments required in items K, L, and M above been maintained on file at the facility? [NR 645.09(11)(d)] — Yes No (N/A)

Comments: _____

O. Has a tank system or component been found to be leaking or unfit for use? [NR 645.09(11)(e)] — Yes (No)

Comments: Checked visually every week.

P. If yes, have the requirements of NR 645.12 been complied with? Attach a separate report. [NR 645.09(11)(e)] — Yes No (N/A)

Comments: _____

Note: If the tank system is a new tank system, skip to Section VII.

VI. ASSESSMENT OF EXISTING TANK SYSTEM'S INTEGRITY [NR 645.07]

Existing tank systems or components are those which were in operation or for which installation had begun on or before March 1, 1991. Each existing tank system is subject to the following requirements until it has secondary containment meeting the requirements of NR 645.09 . (Note: Tank systems handling wastes that become classified as hazardous after March 1, 1991 must comply with these requirements within 12 months of the date that the waste becomes hazardous waste. [NR 645.07(3)].)

A. Does the tank system already have secondary containment that meets the requirements of NR 645.09, as determined in the previous section of this form? If yes, skip the remainder of section VI. [NR 645.07(1)] — (Yes) No

→ No leak detection system

B. Has the owner or operator determined that the tank system is not leaking and is fit for use? [NR 645.07(1)] (Yes) No

visual inspection only.

C. Does the owner or operator keep on file at the facility a written assessment, reviewed and certified by an independent, qualified, registered professional engineer in accordance with s. NR 680.05(2)(d), that attests to the tank system's integrity? [NR 645.07(1)] (Note: This requirement must be complied with by September 1, 1992.) Yes (No)

Comments: _____

Yes No (N/A)

D. Does the assessment determine that the tank system is adequately designed and has sufficient structural strength and compatibility with the wastes that it will not collapse, rupture or fail? [NR 645.07(2)]

E. Does the assessment include design standards according to which the tank and ancillary equipment were constructed? [NR 645.07(2)(a)] Yes No

F. Does the assessment consider hazardous characteristics of the waste or wastes that have been and will be handled? [NR 645.07(2)(b)] Yes No

G. Does the assessment consider existing corrosion protection measures? [NR 645.07(2)(c)] Yes No

H. Does the assessment document the age of the tank system? [NR 645.07(2)(d)] Yes No

I. Does the assessment consider results of a leak test, internal inspection or other tank system integrity examination such that: Test Method Used _____

For underground tanks that cannot be entered, the effects of temperature variations, tank end deflection, vapor pockets and high water table effects are taken into account? [NR 645.07(2)(e)1] Yes No NA

For other tanks and for ancillary equipment, the assessment addresses cracks, leaks, corrosion and erosion? [NR 645.07(2)(e)2] Yes No NA

J. Has the assessment determined that a tank system is found to be leaking or unfit for use? [NR 645.07(4)] Yes No

K. If so, has the owner or operator complied with the requirements of NR 645.12 (Response to leaks or spills and disposition of leaking or unfit-for-use tank systems.)? [NR 645.07(4)] Yes No NA

L. If the tank system contains volatile wastes, is it in compliance with all appropriate air management rules contained in chs. NR 400 to 499 regarding the control of organic compound emissions? [NR 645.07(5)] Yes No (N/A)

Comments: _____

_____

_____

VII. Licensing for Storage or Treatment [645.05]

If this is a treatment or storage facility, it must have one of the following:

Interim license	Yes	No
Operating License	Yes	No
Variance	Yes	No
Waiver	Yes	No

Does this mechanism allow storage or treatment in the tank system? Yes No

Comments: GENERATOR

VIII. GENERAL OPERATING REQUIREMENTS [NR 645.10]

Guidelines For Visual Tank System Inspection:

Metal Tanks: leaks, corrosion, discolored paint, cracks (especially around nozzles, welds, rivets), buckling, bulging, erosion around foundation, rotting of wooden supports, welds and anchor bolts between tank bottoms and ringwalls, deterioration of protective coatings.

Fiberglass - Reinforced Plastic Tanks: leaks, bending, flexing, longitudinal cracks (especially) in horizontal tanks, vertical cracks (especially) in vertical tanks.

Concrete Tanks - Above Ground Portions: leaks, wet spots, deterioration of protective coatings, cracks.

Ancillary Equipment: Corrosion around pipe bends, elbows, flexible hoses, traffic passing over hoses, defective valves, stems and handles, excessive vibrations, pump cavitation, leaky pump seals, missing anchor bolts, excessive dirt, burning odors or smoke, depleted oil reservoir in compressors.

A. Have any hazardous wastes or treatment reagents been placed in a tank system that could cause the tank, its ancillary equipment or the secondary containment system to rupture, leak, corrode or otherwise to fail? [NR 645.10(1)] Yes (No)

TANK IS 5,420 gallons. Waste shipped every 90 days. In past year, only shipped
3700 gal 11/14/05
1800 gal 8/31/05
2800 gal 6/02/05
2200 gal 3/02/05
1780 gal 11/29/04
3500 gal 9/01/04

B. Has the owner or operator used appropriate controls and practices to prevent spills and overflows from tanks or secondary containment system, including, at a minimum: (a) spill prevention controls including check valves or dry disconnect couplings, (b) overfill prevention controls, including level sensing devices, high level alarms, automatic feed cutoff or bypass to another tank, and (c) maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation? [NR 645.10(2)] — Yes (No)

C. In accordance with s. NR 630.31(1) and (2), is the identify and location of all stored and treated hazardous waste known throughout the entire storage or treatment period? [NR 645.10(4)] — (Yes) No

B.O.

IX. INSPECTIONS [NR 645.11]

A. Does the owner or operator follow a schedule and procedure for inspecting overfill controls? [NR 645.11(1)] — Yes (No)

(*) Only once per week.

B. Does the owner or operator inspect at least once each operating day:

1. Overfill and spill control equipment, including waste feed cutoff systems, bypass systems and drainage systems to ensure that they are in good working order? — Yes No (N/A) Don't Have

2. The above ground portions of the tank system, if any, to detect corrosion or release of waste? — (*) (Yes) No NA

3. Data gathered from monitoring and leak detection equipment, including pressure or temperature gauges and monitoring wells to ensure that the tank system is being operated according to its design? — Yes No (N/A) Don't Have

4. The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system, to detect erosion or signs of release of hazardous waste? [NR 645.11(2)] — (*) (Yes) No

Comments: See margin comments above, left.

C. Has the owner or operator inspected cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly: (a) the proper operation of the cathodic protection system shall be confirmed within 6 months after initial installation and annually thereafter; and (b) all sources of impressed current shall be inspected or tested as both, as appropriate, at least bimonthly? [NR 645.11(3)] — Yes No (NA)

D. Has the owner or operator documented each inspection in the operating record of the facility? [NR 645.11(4)] Weekly only — Yes / No / (N/A)

X. RESPONSE TO LEAKS OR SPILLS & DISPOSITION OF LEAKING OR UNFIT FOR USE TANK SYSTEMS [NR 645.12]

A. Has the tank system or secondary containment system been found to be unfit for use, or has there been a leak or spill from the tank system or secondary containment system? [NR 645.12] — Yes / (No)

Comments: _____

If yes, have the requirements of NR 645.12 been met? (Response to leaks or spills and disposition of leaking or unfit-for-use tank systems.) [NR 645.12] Attach a separate report. — Yes / No / (NA)

Comments: _____

XI. IGNITABLE OR REACTIVE WASTE REQUIREMENTS [NR 645.10]

Yes / No / (N/A)

A. Ignitable or reactive waste shall be separated and protected from sources of ignition or reaction including open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks, spontaneous ignition and radiant heat. While ignitable or reactive waste is being handled, the owner or operator shall confine smoking and open flame to specially designated locations. "No smoking" signs shall be conspicuously placed wherever there is a hazard from ignitable or reactive waste. Have these precautions been taken to prevent accidental ignition or reaction of these wastes? [NR 645.10(5) and 630.17(1)]

B. Are the requirements of NR 600.04 and chs NR 610 to 685, covering the treatment, storage or disposal of ignitable or reactive waste, and the mixture or commingling of incompatible wastes or material being conducted so that it does not: (a) generate extreme heat or pressure, fire or explosion or violent reaction; (b) produce uncontrolled toxic mists, fumes, dusts or gases in sufficient quantities to threaten human health or the environment; (c) produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions; (d) damage the structural integrity of the device or facility containing the waste; or (e) threaten human health or the environment? [NR 645.10(5) and 630.17(2)] — Yes / No / (N/A)

C. If items A or B above are applicable, the owner or operator shall document that compliance. This documentation may be based on references to published scientific or engineering literature, data from trial tests, such as bench scale or pilot scale tests, waste analyses as specified in s. NR 630.13(1), or the results of the treatment of similar wastes by similar treatment processes and under similar operating conditions. Has this compliance been documented? [NR 645.10(5) and 630.17(3)] — Yes No (N/A)

Comments: _____

D. Have ignitable or reactive wastes been placed in the tank system? — Yes (No)

Comments: _____

E. If yes, have the setback requirements of NR 645.13 been met? (Refer to June 10, 1992 memorandum from Mike Barden to Fred Johnson or EPA Hazardous Waste Tank Systems Inspection Manual, pp. B-10A-E.) Attach a separate report. — Yes No (NA)

XII. INCOMPATIBLE WASTE REQUIREMENTS [NR 645.14]

A. Has hazardous waste been placed in a tank system that has not been decontaminated and that has previously held an incompatible waste or material? [NR 645.14(1)] — Yes (No)

B. If yes, have the requirements of s. NR 630.17(2) been complied with? [NR 645.14(2)] — Yes No (NA)

XIII. WASTE ANALYSIS & TRIAL TESTS [NR 645.15] (Only Complete this Section for TSF Tank Systems)

A. Has a tank system been used to store a hazardous waste that is substantially different from waste previously treated or stored in that tank system? [NR 645.15] — Yes No NA

B. If yes, has the waste analysis required by 630.12 been performed? (TSFs) [NR 645.15(1)] — Yes No NA

C. Also, has the owner or operator (a) conducted waste analyses and trial tests, such as bench scale or pilot plant scale tests; or (b) obtained written, documented information on similar waste under similar operating conditions to show that the proposed storage or treatment will meet the requirements of s. NR 645.10(1)? [NR 645.15(1)] — Yes No NA

Comments: _____

XIV. CLOSURE AND LONG TERM CARE [NR 645.17] (Only Complete this Section for TSF Tank Systems)

A. Does the owner or operator of a treatment or storage facility have on hand a closure plan, contingent long-term care plan, and cost estimates in compliance with s. NR 645.17(1)(a)3? [NR 645.17] Yes No

Comments: _____

_____